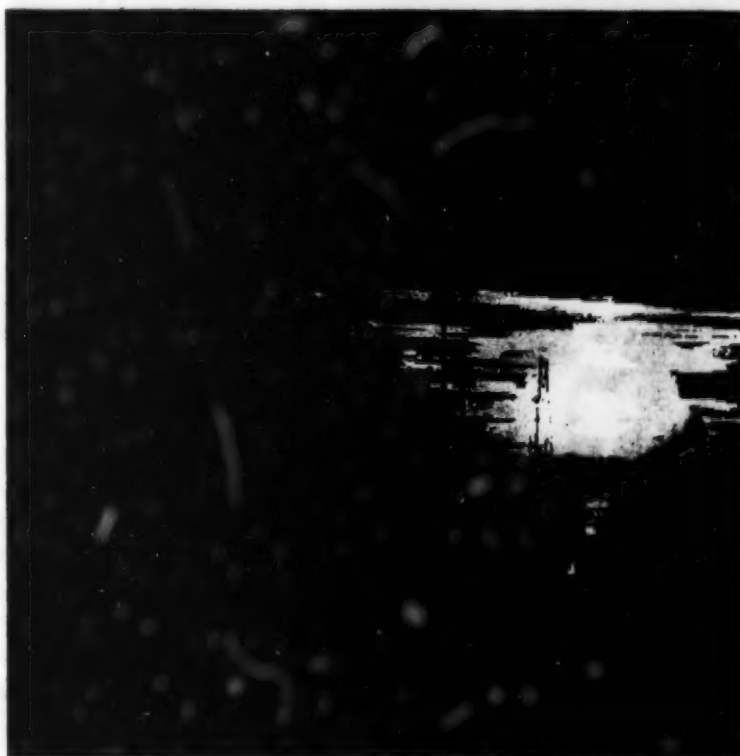


OCCUPATIONAL INJURY AND DISEASE IN ALBERTA

Oilfield Maintenance and Construction 1994 to 1998



Upstream
Oil and Gas

Subsector #2

Alberta
HUMAN RESOURCES
AND EMPLOYMENT

July 1999

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OILFIELD MAINTENANCE & CONSTRUCTION

TABLE OF CONTENTS

1. Sub-Sector Description	1
3. LTC Rates & Duration Rates	3
3.1 LTC Rates by Size of Employer:1998	3
4. Analysis of The Lost-Time Claims	4
4.1 Nature of Injury	4
4.2 Part of Body Affected	5
4.3 Source of Injury	7
4.4 Type of Event	8
4.5 Duration of Disability	10
5. Characteristics of the Injured Worker	11
5.1 Occupation of Injured Worker	11
5.2 Age of Injured Worker	13
5.3 Length of Time Employed	13
5.4 Gender of Injured Worker	13
6. Number of Employers that Received/Renewed a CoR in 1998	14
7. Cost of Claims, Payroll & Premiums	14
8. Occupational Fatalities	15
9. OHS Investigated Occupational Fatalities: 1987 to 1998	16
Appendix A: Terms, Definitions, and Formulas	17
Appendix B: Upstream Oil and Gas 1998 Industry Codes	18

1. Sub-Sector Description

Sub-Sector # 2: Oilfield Maintenance & Construction

Oilfield Construction and/or Maintenance (Upstream of Processing Plants)(Industry # 06304)

This classification describes general contracting business that undertake turn-key construction and maintenance projects at facilities and lease sites upstream of gas plants.

Businesses may construct oil and gas wells, battery tanks, and compressor stations upstream of the processing facility. Construction activities may extend into ties-ins, installing/removing pumpjacks, dehydrators, and secondary construction activities of installing fences and gates. Maintenance activities may include painting, welding, pipefitting, cleaning oil spills, clearing a lease road, and maintaining the grounds in and around the site.

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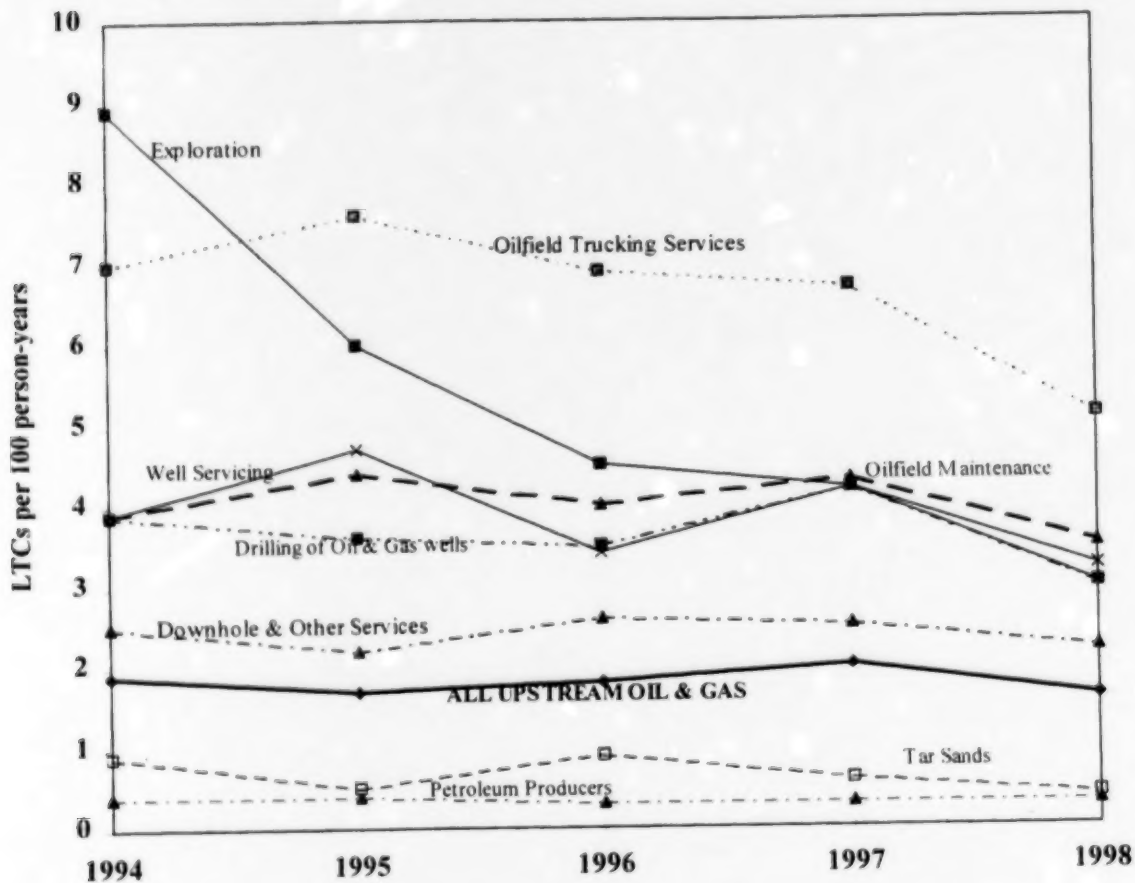
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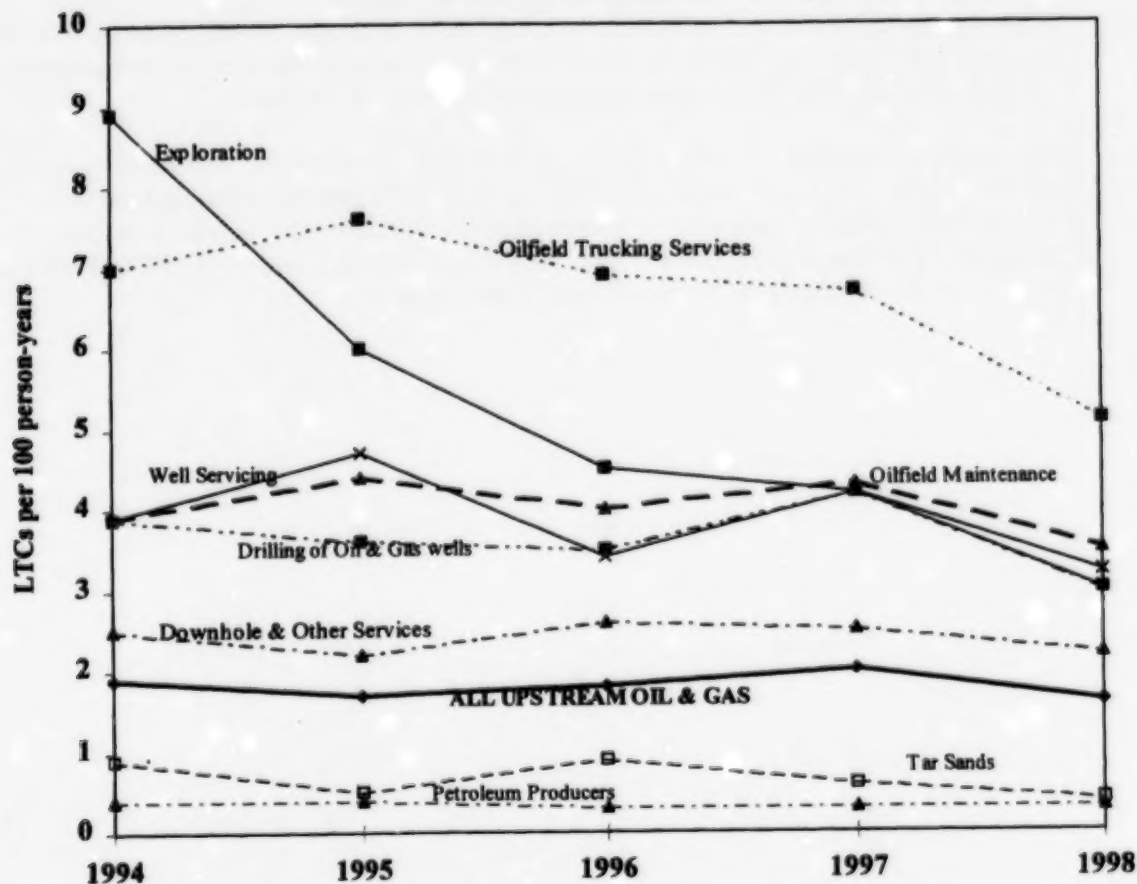
Lost-Time Claim Rates All Upstream Oil & Gas Subsectors Alberta 1994-1998



Lost-Time Claim Rate	1994	1995	1996	1997	1998
All Upstream Oil and Gas	1.9	1.7	1.8	2.0	1.6
Exploration	8.9	6.0	4.5	4.2	3.0
Oilfield Maintenance and Construction	3.9	4.4	4.0	4.3	3.5
Well Services with Service Rigs	3.9	4.7	3.4	4.2	3.2
Drilling of Oil and Gas	3.9	3.6	3.5	4.2	3.0
Downhole & Other Oilfield Services	2.5	2.2	2.6	2.5	2.2
Tar Sands	0.9	0.5	0.9	0.6	0.4
Petroleum Producers	0.4	0.4	0.3	0.3	0.3
Oilfield Trucking Services	7.0	7.6	6.9	6.7	5.1

2.

Lost-Time Claim Rates All Upstream Oil & Gas Subsectors Alberta 1994-1998



Lost-Time Claim Rate	1994	1995	1996	1997	1998
Exploration	8.9	6.0	4.5	4.2	3.0
Oilfield Maintenance and Construction	3.9	4.4	4.0	4.3	3.5
Well Services with Service Rigs	3.9	4.7	3.4	4.2	3.2
Drilling of Oil and Gas	3.9	3.6	3.5	4.2	3.0
Downhole & Other Oilfield Services	2.5	2.2	2.6	2.5	2.2
Tar Sands	0.9	0.5	0.9	0.6	0.4
Petroleum Producers	0.4	0.4	0.3	0.3	0.3
Oilfield Trucking Services	7.0	7.6	6.9	6.7	5.1

3. LTC Rates & Duration Rates

Oilfield Maintenance & Construction

Year	# of Accounts	Cost	Person Years	Days Lost	Duration Rate	LTCs	LTC Rate
94	684	\$919,501	3,738	5,676	152	147	3.9
95	760	\$847,724	3,495	5,962	171	155	4.4
96	778	\$1,164,171	4,019	5,874	146	161	4.0
97	858	\$1,871,160	5,264	8,100	154	225	4.3
98	901	\$903,554	4,839	6,575	136	168	3.5

3.1 LTC Rates by Size of Employer:1998

Size of Employer	# of Accounts	LTCs	Person - Years	LTC Rate
A: 0 < PYs <= 1	417	4	209	1.9
B: 1 < PYs < 5	258	25	607	4.1
C: 5 <= PYs < 10	65	20	453	4.4
D: 10 <= PYs < 20	56	34	823	4.1
E: 20 <= PYs < 40	18	13	492	2.6
F: 40 <= PYs < 100	19	61	1,262	4.8
G: PYs >= 100	5	11	993	1.1
H: Invalid	63	N/A	0	N/A
Total	901	168	4,839	3.5

4. Analysis of The Lost-Time Claims

4.1 Nature of Injury

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
SPRAIN, STRAIN	46	47	50	93	49	285	33.3
FRACTURE & DISLOCATION							
FRACTURE	16	22	25	47	36	146	17.1
DISLOCATION	5	3	5	4	7	24	2.8
SUBTOTAL	21	25	30	51	43	170	19.9
BRUISE, CONTUSION, CRUSHING	16	21	22	21	26	106	12.4
CUT, LACERATION, PUNCTURE	20	18	14	16	8	76	8.9
OTHER INJURY	7	6	10	14	12	49	5.7
SCRATCH, ABRASION	7	7	9	7	6	36	4.2
BURN, SCALD-THERMAL	3	6	6	3	8	26	3.0
OTHER DISEASE	2	5	5	6	4	22	2.6
ALL OTHER NATURES, UNS	25	20	15	14	12	86	10.0
Total	147	155	161	225	168	856	100.0

4.2 Part of Body Affected

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
BACK							
LUMBAR (LOWER BACK)	17	22	3	9	6	57	6.7
OTHER PART	17	4	37	47	26	131	15.3
SUBTOTAL	34	26	40	56	32	188	22.0
FINGER(S)	18	19	9	27	26	97	11.3
LEG(S)							
KNEE	13	8	9	13	16	59	6.9
OTHER PART	6	9	13	6	3	37	4.3
SUBTOTAL	19	17	22	19	19	96	11.2
ANKLE(S) & FOOT(FEET) -NOT TOES							
ANKLE(S)	4	11	14	17	7	53	6.2
FOOT(FEET) -NOT ANKLES OR TOES	11	5	7	9	10	42	4.9
SUBTOTAL	15	16	21	26	17	95	11.1
OTHER TRUNK							
SHOULDER(S)	6	8	6	11	6	37	4.3
CHEST-INCLUDES INTERNAL ORGANS	2	.	2	9	7	20	2.3
HIP(S)-INCLUDES PELVIC ORGANS	2	2	4	6	6	20	2.3
OTHER PART	2	2	2	2	2	10	1.2
SUBTOTAL	12	12	14	28	21	87	10.2
WRIST(S) & HAND(S) -NOT FINGERS							
HAND(S) -NOT WRISTS OR FINGERS	8	7	11	6	10	42	4.9
WRIST(S)	3	5	4	10	9	31	3.6
SUBTOTAL	11	12	15	16	19	73	8.5

(CONTINUED)

Part of Body Affected(Continued)

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
EYE(S)-OPTIC NERVE, VISION	11	14	12	11	8	56	6.5
OTHER HEAD, NECK							
NECK	4	5	4	9	4	26	3.0
OTHER PART	5	7	3	9	2	26	3.0
SUBTOTAL	9	12	7	18	6	52	6.1
FACE	6	7	7	9	6	35	4.1
ARM(S) (ABOVE WRIST)	5	8	6	4	5	28	3.3
MULTIPLE MAJOR BODY PARTS	4	4	5	4	3	20	2.3
ALL OTHER PARTS, UNS	5	8	3	7	6	29	3.4
Total	147	155	161	225	168	856	100.0

4.3 Source of Injury

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
METAL ITEMS-NEC							
PIPE AND FITTINGS	21	30	28	50	17	146	17.1
STRUCTURAL METAL	2	4	4	4	5	19	2.2
METAL CHIPS, SPLINTERS, PARTICLES	4	5	5	1	3	18	2.1
OTHER SOURCE	10	7	4	2	4	27	3.2
SUBTOTAL	37	46	41	57	29	210	24.5
SOURCE-UNS	23	32	21	25	26	127	14.8
BODILY MOTION	16	13	21	16	18	84	9.8
WORKING SURFACES							
GROUND (OUTDOORS)	9	3	6	11	6	35	4.1
OTHER SOURCE	5	8	9	12	8	42	4.9
SUBTOTAL	14	11	15	23	14	77	9.0
VEHICLES							
HIGHWAY VEHICLES (POWERED)	5	7	7	18	7	44	5.1
OTHER SOURCE	6	4	2	7	2	21	2.5
SUBTOTAL	11	11	9	25	9	65	7.6
HANDTOOLS-UNPOWERED	8	10	10	14	20	62	7.2
MACHINES	7	5	7	11	8	38	4.4
HANDTOOLS-POWERED	3	3	7	8	3	24	2.8
ALL OTHER SOURCES	28	24	30	46	41	169	19.7
Total	147	155	161	225	168	856	100.0

4.4 Type of Event

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
STRUCK BY							
STRUCK BY FLYING OBJECT	2	3	17	24	20	66	7.7
STRUCK BY FALL OBJ DURING HANDLING	4	6	3	7	6	26	3.0
STRUCK BY FALLING OBJECT-NEC	11	11	.	.	.	22	2.6
OTHER TYPE	18	21	6	18	17	80	9.3
SUBTOTAL	35	41	26	49	43	194	22.7
OVEREXERTION							
LIFTING OBJECTS	16	12	23	25	18	94	11.0
PULLING/PUSHING OBJECTS	1	6	6	5	2	20	2.3
OTHER TYPE	9	6	6	17	8	46	5.4
SUBTOTAL	26	24	35	47	28	160	18.7
CAUGHT IN, UNDER OR BETWEEN	13	20	14	26	18	91	10.6
BODILY REACTION							
REACTION FROM INVOLUNTARY MOTION	8	4	10	6	8	36	4.2
REACTION FROM VOLUNTARY MOTION	8	6	10	6	6	36	4.2
OTHER TYPE	.	3	2	4	3	12	1.4
SUBTOTAL	16	13	22	16	17	84	9.8
FALL FROM ELEVATION							
FALL FROM VEHICLES	4	4	2	4	4	18	2.1
OTHER TYPE	4	3	7	15	11	40	4.7
SUBTOTAL	8	7	9	19	15	58	6.8
FALL ON SAME LEVEL							
FALL TO WALKWAY, WORKING SURFACE	7	4	6	6	1	24	2.8
OTHER TYPE	2	3	2	6	5	18	2.1

(CONTINUED)

Type of Event(Continued)

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
FALL ON SAME LEVEL							
SUBTOTAL	9	7	8	12	6	42	4.9
VEHICLE INCIDENTS	6	3	8	13	5	35	4.1
RUBBED OR ABRADED							
ABRADED BY FOREIGN MATTER IN EYES	7	8	8	6	3	32	3.7
OTHER TYPE	1	1	.	.	.	2	0.2
SUBTOTAL	8	9	8	6	3	34	4.0
STRUCK AGAINST	8	5	3	8	7	31	3.6
CONTACT NOXIOUS SUBSTANCE							
ABSORB NOXIOUS SUBSTANCES	2	6	4	6	5	23	2.7
OTHER TYPE	.	3	.	.	.	3	0.4
SUBTOTAL	2	9	4	6	5	26	3.0
TEMPERATURE EXTREMES							
HOT OBJECTS/SUBSTANCES	1	5	4	2	6	18	2.1
OTHER TYPE	1	.	2	1	.	4	0.5
SUBTOTAL	2	5	6	3	6	22	2.6
ALL OTHER TYPES, UNS	14	12	18	20	15	79	9.2
Total	147	155	161	225	168	856	100.0

4.5 Duration of Disability

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
01 - 05 DAYS LOST	39	41	48	81	48	257	30.0
06 - 10 DAYS LOST	23	20	23	28	21	115	13.4
11 - 15 DAYS LOST	15	18	13	14	16	76	8.9
16 - 20 DAYS LOST	9	8	9	11	8	45	5.3
21 - 30 DAYS LOST	10	16	5	13	16	60	7.0
31 - 40 DAYS LOST	8	5	10	15	10	48	5.4
41 - 50 DAYS LOST	7	11	10	7	8	43	5.0
51 OR MORE DAYS LOST	35	30	38	51	35	189	22.1
DAYS LOST-UNSPECIFIED, 0	3	6	5	5	6	25	2.9
Total	147	155	161	225	168	856	100.0

5. Characteristics of the Injured Worker

5.1 Occupation of Injured Worker

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
CONSTRUCTION OCCUPATIONS							
LABOR-CONSTRUCTION	13	17	12	15	8	65	7.6
PIPEFITTING & PLUMBING	12	10	9	12	14	57	6.7
CONSTRUCTION-NEC	14	10	10	4	8	46	5.4
EXCAVATING, GRADING, ETC.	8	2	1	9	3	23	2.7
OTHER OCCUPATION	7	5	7	13	3	35	4.1
SUBTOTAL	54	44	39	53	36	226	26.4
OIL & GAS FIELD, MINING							
LABOR-OIL & GAS, MINING	18	15	17	31	23	104	12.1
FOREMEN-OIL & GAS, MINING	3	4	8	7	8	30	3.5
OIL & GAS, MINING-NEC	4	4	5	4	3	20	2.3
OTHER OCCUPATION	3	4	.	2	6	15	1.8
SUBTOTAL	28	27	30	44	40	169	19.7
MACHINING							
WELDING & FLAME CUTTING	15	19	15	27	18	94	11.0
OTHER OCCUPATION	1	2	.	1	.	4	0.5
SUBTOTAL	16	21	15	28	18	98	11.4
OCCUPATION-NEC							
LABOR-NEC	1	3	9	21	21	55	6.4
OTHER OCCUPATION	2	2	6	6	6	22	2.6
SUBTOTAL	3	5	15	27	27	77	9.0
FABRICATING, REPAIR							
MECHANICS-INDUSTRIAL, FARM MACHINERY	4	3	3	8	1	19	2.2
OTHER OCCUPATION	3	6	2	3	3	17	2.0
SUBTOTAL	7	9	5	11	4	36	4.2

(CONTINUED)

Occupation of Injured Worker (Continued)

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
TRUCK DRIVERS	4	8	5	6	8	33	3.9
MATERIALS HANDLING-NEC	4	9	4	7	6	30	3.5
ALL OTHER OCCUPATIONS, UNS	31	32	48	47	29	187	21.8
Total	147	155	161	225	168	856	100.0

5.2 Age of Injured Worker

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
15-19 YEARS	13	17	12	28	19	89	10.4
20-24 YEARS	30	38	28	52	40	188	22.0
25-34 YEARS	55	48	59	64	50	276	32.2
35-44 YEARS	29	31	41	47	33	181	21.1
45-54 YEARS	14	15	15	21	19	84	9.8
55-64 YEARS	5	3	6	10	7	31	3.6
AGE-UNSPECIFIED	1	3	.	3	.	7	0.8
Total	147	155	161	225	168	856	100.0

5.3 Length of Time Employed

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
A. LESS THAN 1 MONTH	27	22	21	41	24	135	15.8
B. 1 MONTH TO < 6 MONTHS	54	51	34	60	34	233	27.2
C. 6 MONTHS TO < 1 YEAR	14	19	14	23	17	87	10.2
D. 1 YEAR OR MORE	30	38	50	64	56	238	27.8
E. TIME-UNSPECIFIED	22	25	42	37	37	163	19.0
Total	147	155	161	225	168	856	100.0

5.4 Gender of Injured Worker

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
MALE	144	149	155	211	159	818	95.6
FEMALE	2	4	4	7	7	24	2.8
GENDER-UNSPECIFIED	1	2	2	7	2	14	1.6
Total	147	155	161	225	168	856	100.0

6. Number of Employers that Received/Renewed a CoR in 1998

	Certified Employers	Cert. & Uncert. (# of Accounts)	% Certified
Sub-Sector # 2			
Industry 06304-Oilfield Maintenance & Construction	20	901	2.2%
UPSTREAM OIL & GAS SECTOR	119	7,205	1.7%

7. Cost of Claims, Payroll & Premiums

	Occurrence Year				
	1994	1995	1996	1997	1998
Transaction Year					
1994	\$702,331				
1995	\$407,614	\$627,143			
1996	\$340,321	\$356,525	\$1,121,011		
1997	\$104,366	\$72,190	\$411,428	\$1,084,220	
1998	\$181,445	\$101,924	\$552,909	\$936,316	\$757,477
Total Cost	\$1,736,076	\$1,157,782	\$2,085,348	\$2,020,536	\$757,477

Total Payroll	\$101,449,453	\$99,674,340	\$116,035,466	\$156,367,033	\$149,251,635
Total Premiums	\$4,991,101	\$4,338,942	\$4,344,330	\$5,475,717	\$4,283,003

The above cost for claims, payroll and premiums are for the five year period 1994 through 1998. The data is as at July, 1999.

The claim cost amount reflect only paid costs on claims which have occurred in the five year period. These paid costs are tracked by year of occurrence and year that the cost were transacted.

The payroll have been totaled for each year. The premium is the total of employer's premiums for each year.

8. Occupational Fatalities

An occupational fatality is the death of a worker which results from a work-related incident or exposure. Alberta Labour classifies occupational fatalities into three general types: motor vehicle incident, workplace incident and occupational diseases. Each is described in detail below.

Motor Vehicle Incident

Motor vehicle incident typically involve highway vehicles operating on public roads in which the fatally injured worker was either the driver or a passenger. This category also includes fatalities involving air plane crashes, train crashes, helicopter crashes. etc.

Workplace Incident

Fatal workplace incidents consists of cases in which the worker dies at a work site, or as a result of injuries sustained at a work site. It is this type of fatality that Alberta Labour may be responsible for investigating.

Occupational Diseases

Occupational disease fatalities consist mostly of recognized occupational disease, that is, disease known to be primarily or exclusively work-related (e.g. asbestosis, black lung disease). Occupational diseases are frequently diagnosed many years after the initial or crucial exposure to the toxic substance, and in such cases it is very difficult to determine when the fatal exposure occurred. Thus, the occupational disease category, should not be interpreted to reflect present work site hazardous conditions or exposures.

Each year the Workers' Compensation Board (WCB) accepts some occupational fatality claims for compensation. Claims accepted in a particular year does not imply the fatalities occurred in that year.

Description of Oilfield Maintenance and Construction Fatalities Accepted by WCB Alberta, 1993-1998

Year	Occupational Disease		Motor Vehicle incident		Workplace Incident		Total	
	N	%	N	%	N	%	N	%
1992	0	0	1	100.0	0	0	1	100
1993	0	0	0	0	1	100.0	1	100
1994	0	0	2	100.0	0	0	2	100
1995	0	0	1	100.0	0	0	1	100
1996	0	0	3	100.0	0	0	3	100
1997	0	0	1	50.0	1	50.0	2	100
1998	1	33.3	1	33.3	1	33.3	3	100
Total	1	7.7	9	69.2	3	23.1	13	100

9. OHS Investigated Occupational Fatalities: 1987 to 1998

YEAR:	1988	AGE:	36
OCCUPATION:	Auger Equipment Operator	FILE:	0605
INDUSTRY:	Horizontal or Angular Drilling		
EXPERIENCE:	3 years		

OCCUPATION:	Labourer	AGE:	20
INDUSTRY:	Oilfield Maintenance and Construction		
EXPERIENCE:	4 months		

DESCRIPTION: Two pipeline workers were fatally injured when a truck mounted crane contacted an overhead power line. The two workers were part of a construction crew that was installing a pipeline in the oil patch. Contact with the overhead power line was made when the two workers were in process of lowering augering equipment into an excavation.

YEAR:	1989	AGE:	40
OCCUPATION:	Truck driver/owner	FILE:	0649
INDUSTRY:	Oilfield Maintenance and Construction		
EXPERIENCE:	25 years		

DESCRIPTION: Three workers had arrived at the well site with a truck unit on which they had erected a set of gin poles; also a second truck and trailer unit on which they were going to haul the pump jack assembly to another well site. The driver of the gin pole truck backed it into position next to the pump jack base. The swamper and the second driver proceeded to rig up the slings and chain assembly to the winch-line in preparation for the gin pole to lift the pump jack.

The driver of the gin pole truck began to lift, and when the load lifted in an uneven manner, he set it down, and the hookup was relocated several times to get it balanced. When the load lifted evenly it was hoisted up to clear the securing bolts fastened to the base. Shortly after the pump jack had cleared the bolts, and not being secured at the top, the whole assembly tipped over away from the gin poles. The second driver had remained in close proximity to the pump jack assembly while it was being lifted, and when the load tipped over he was struck and driven to the ground causing fatal injuries.

YEAR:	1998	FILE:	0891
OCCUPATION:	Apprentice Welder	AGE:	24
INDUSTRY:	Oil Field Construction and/or Maintenance (Upstream of Processing Plants)		
EXPERIENCE:	1.5 years		

DESCRIPTION: A three person crew was in the process of cutting steel pilings for the installation of an above ground pipeline at the Primrose Lake construction site. The piles had been driven into place in pairs. The piles at the incident scene were long, so a backhoe was required to hold the piles while they were being cut. One of the poles had been cut and pulled down. They were setting up to cut the second pile when the welder appeared in front of the piling just as the backhoe bucket was swinging back to hold the pile. The welder was hit on the right side of his head with the bucket of the backhoe resulting in fatal injuries.

Appendix A: Terms, Definitions, and Formulas

Lost-Time Claim	A lost-time claim (LTC) is a claim for an occupational injury or disease which disables the worker beyond the day of injury. Included are claims for which wages compensation are paid, permanent disability claims, fatalities, and cases in which the injured worker is assigned light duties or other modified work.
Person-Years	Person-year estimates are calculated from wage and payroll data provided by account holders to the WCB. Alberta Labour uses these data to estimate. An average industry wage, and uses the average industry wage and employer payroll data to estimate person-years for each employer and each industry. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.
LTC Rate	<p>The lost-time claim (LTC) rate is calculated by dividing the number of lost-time claims by the person-year estimate, and multiplying the result by 100. The LTC rate represent the probability or risk of disabling injury or disease to a worker during a period of one year's work. Comparisons of LTC rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.</p> $\text{LTC Rate} = \frac{\text{Number of LTCs} \times 100}{\text{Estimated Person-years}}$
Duration (Days Lost)	The duration of disability is the number of days following the injury or disease for which the worker was disabled, and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from WCB. Alberta Labour obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the duration information reported here underestimates the true impact of lost-time injury and disease.
Duration Rate	<p>The duration rate is calculated by dividing the number of work days lost (disability days) by the person-year estimate, and multiplying by 100. The result is expressed as "days lost per 100 person-years worked", and indicates, in part, the economic impact of occupational injury and disease. Duration rates are not recommended as reliable indicators of full economic cost. In addition, readers are warned that duration rates are highly unstable when based on only a few lost-time claims; it is recommended that the duration rate not be calculated based upon fewer than 30 lost-time claims.</p> $\text{Duration Rate} = \frac{\text{Disability Days} \times 100}{\text{Estimated Person-Years}}$
WCB Accepted Fatality	An occupational fatality is the death of a worker which result from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.
NEC	Means "Not Elsewhere Classified"
UNS	Means "Unspecified"

Appendix B: Upstream Oil and Gas 1998 Industry Codes**Sub-Sector 1:**

Industries:

Exploration09200~Seismic Geophysical/Mineral Exploration
09201~Shot Hole Drilling**Sub-Sector 2:**

Industries:

Oilfield Maintenance and Construction

06304~Oilfield Construction and/or Maintenance

Sub-Sector 3:

Industries:

Well Servicing With Service Rigs

09903~Well servicing with Service Rigs including Power Swivels

Sub-Sector 4:

Industries:

Drilling of Oil and gas Wells

09600~Drilling of Oil & Gas Wells

Sub-Sector 5:

Industries

Downhole & Other Oilfield Services06305~Field Production Operators
06306~Vacuum Removal of Waste
09900~Mud Logging
09902~Pressure Cleaning Services
09904~Rathole Drilling and Rig Anchoring
09911~Oilfield Downhole Services
09915~Well Casing Services
09921~Servicing Christmas Trees On Oil Wells
09927~Liquid Waste Treatment & Disposal**Sub-Sector 6:**

Industries:

Tar Sands06600~Mining & Processing of Bituminous Sand
06601~Research/Development, Oil Sands and Heavy Oil Recovery**Sub-Sector 7:**

Industries:

Oil & Gas Exploration/Development

06300~Oil and Gas Exploration & Development-Upstream Operations

Sub-Sector 8:

Industries:

Oilfield Trucking Services

50720~Oilfield Trucking Services

